

Notice of Allowability

Application No.

10/782,520

Examiner

Tony Chuo

Applicant(s)

CLINGERMAN ET AL.

Art Unit

1795

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 8/22/07.
2. ☒ The allowed claim(s) is/are 1-7, 9-21, 23-42 and 51-56.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 9/20/07
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

Allowable Subject Matter

1. The following is an examiner's statement of reasons for allowance:

The Raiser reference discloses a fuel cell system comprising: a fuel cell stack; a 12 V auxiliary blower; and a high voltage compressor (See paragraph [0009]). The Hamada reference discloses a method of starting up a fuel cell comprising: pre-generating electricity with the fuel cell "3" with the remaining air and hydrogen supplied from the hydrogen storage unit; driving the air supply fan "10" with the electricity produced by the fuel cell, thereby supplying additional oxygen to the cathode inlet of the fuel cell via the air supply fan; and increasing the voltage produced by the fuel cell as the fuel cell starts the generation of electricity (See column 3, lines 57-64).

Regarding independent claim 1, Raiser as modified by Hamada et al does not expressly teach a method of fuel cell start-up comprising: supplementing the quantity of oxygen supplied to the cathode inlet of the fuel cell stack when the voltage output is sufficient to begin driving the high voltage compressor by simultaneously operating the high voltage compressor with the voltage output of the fuel cell stack and the low voltage power source.

Regarding independent claim 13, Raiser as modified by Hamada et al does not expressly teach a method of fuel cell start-up comprising: decreasing the operation of the blower over time as the voltage output of the fuel cell stack increases.

Regarding independent claim 23, Raiser as modified by Hamada et al does not expressly teach a method of fuel cell start-up comprising: ceasing operation of the blower when the voltage output of the fuel cell stack has reached a predetermined value.

Regarding independent claim 24, Raiser as modified by Hamada et al does not expressly teach a method of fuel cell start-up comprising: ceasing operation of the blower when the voltage output of the fuel cell stack is sufficient to support operation of the compressor.

Regarding independent claim 25, Raiser as modified by Hamada et al does not expressly teach a method of operating a fuel cell system comprising: operating the low voltage blower in the stand-by mode and operating the high voltage compressor during normal mode.

Regarding independent claim 51, Raiser as modified by Hamada et al does not expressly teach a method of fuel cell start-up comprising: supplementing the quantity of oxygen supplied to the cathode inlet of the fuel cell stack when the voltage produced by the fuel cell stack is sufficient to begin driving the high voltage compressor by simultaneously operating the high voltage compressor and the low voltage blower with the voltage produced by the fuel cell stack.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tony Chuo whose telephone number is (571) 272-0717. The examiner can normally be reached on M-F, 7:00AM to 3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TC



JONATHAN CREPEAU
PRIMARY EXAMINER